DOCUMENT RESUME

ED 451 375 CE 081 522

AUTHOR Hughes, Maria; Smeaton, Barry
TITLE Searching for Excellence in FE Colleges.
INSTITUTION Learning and Skills Development Agency, London (England).
ISBN ISBN-1-85338-622-7
PUB DATE 2001-00-00
NOTE 44p.
AVAILABLE FROM Learning and Skills Development Agency, 3 Citadel Place, Tinworth Street, London SE11 5EF, England, United Kingdom, Tel: 020 7840 5443; Fax: 020 7840 5401; Web site: http://www.LSagency.org.uk (10 British pounds).
PUB TYPE Reports - Research (143)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Access to Education; *Adult Learning; Adult Students; Apprenticeships; Articulation (Education); Case Studies; Change Strategies; College Programs; Cooperative Planning; Curriculum; Delivery Systems; Educational Finance; Educational Improvement; Educational Needs; *Educational Quality; Educational Trends; Engineering Education; Foreign Countries; Job Training; Literature Reviews; National Surveys; Needs Assessment; Nontraditional Students; *Performance Factors; Postsecondary Education; Program Costs; Program Development; Quality Control; School Business Relationship; *Specialization; Staff Development; Student Needs; Teacher Improvement; Teacher Qualifications; Teacher Student Relationship; *Technical Institutes; Trend Analysis; *Vocational Education
IDENTIFIERS *England; General National Vocational Qualif (England); National Vocational Qualifications (England)

ABSTRACT

The factors responsible for the atypical success experienced by some English further education (FE) colleges were examined through case studies of eight FE colleges that have managed to extend their high-quality vocational education and training (VET) provision in recent years. The 8 colleges were selected from only 56 identified as having significant provision at level 3 in most VET areas. Data were collected from official enrollment, retention, and achievement statistics; a literature review; and site visits. Successful delivery of high-quality specialist VET provision was found to depend on a combination of the following factors: focused mission and strategy; first-rate teaching by expert staff; relevant and coherent content; sustained relationships with employers; and appropriate equipment and accommodation. The following were among key development and delivery issues identified: (1) different types of specialties likely require different delivery models; (2) consideration should be given to a network approach based on linking partner colleges with lead or "teaching" colleges; (3) centers of excellence should have a research and development focus and should quickly establish credibility among employers; and (4) learners from all backgrounds must be nurtured and encouraged to strive for excellence. (Profiles of the sample colleges are appended. The bibliography lists 11 references.) (MN)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 451 375

learning and skills development agency

Searching for excellence in FE colleges

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
L. Williams
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
1

BEST COPY AVAILABLE

Maria Hughes and Barry Smeaton

learning
and skills
development
agency

Searching for excellence in FE colleges

3

Maria Hughes and Barry Smeaton

Published by the
Learning and Skills Development Agency

www.LSagency.org.uk

Feedback should be sent to
Information Services,
Learning and Skills Development Agency,
3 Citadel Place, Tinworth Street, London SE11 5EF
Tel 020 7962 1066 Fax 020 7962 1258
enquiries@LSagency.org.uk

Registered with the Charity Commissioners

Editor: Jennifer Rhys
Designers: Dave Shaw and Kevin Ashill
Printer: Blackmore Ltd, Shaftesbury, Dorset

ISBN 1 85338 622 7

© Learning and Skills Development Agency 2001

You are welcome to copy this publication for internal use within your organisation. Otherwise, no part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, electrical, chemical, optical, photocopying, recording or otherwise, without prior written permission of the copyright owner.

Note
FEDA is now known as the
Learning and Skills Development Agency.

Contents

Acknowledgements	iv
Executive summary	**1**
Key findings	2
Development and delivery issues	3
Critical success factors	4
Next steps	4
1 Introduction	**5**
Further education's core purpose	5
The changing face of vocational education and training	5
The Agency's investigation	6
2 Findings	**9**
Statistical review	9
Literature review	10
The sample colleges	10
Features of excellence	13
3 Developing excellence	**27**
Specialisation alongside access	27
Challenges to colleges	28
A radical overhaul of mission and purpose	28
Staff expertise and capacity to deliver	29
Cost and upkeep of specialisms	29
The importance of 'place'	30
4 Delivery issues	**31**
5 Next steps	**35**
Appendix Profiles of sample colleges	**36**
References	**40**

Acknowledgements

Grateful thanks are due to managers and staff at the following colleges:

The Arts Institute at Bournemouth
Barking College
Barnfield College
Bradford College
Farnborough College of Technology
Leeds College of Technology
Newcastle College
South Nottingham College

Executive summary

Education and Employment Secretary David Blunkett's vision for a modern skills supply system was outlined in his statement at the Association of Colleges Annual Conference in November 2000 as:

> *...the re-invention for a new century of vocational and technical education... of the same standard and delivered with the same rigour, as academic opportunities [with] new approaches to delivery ... I envisage a network of specialist centres of vocational education built around colleges or groups of colleges working with business partners.* (*Colleges for excellence and innovation* page 4, paragraph 5)

Government has identified FE colleges as the mainstay of such a system, capable of developing the skills and knowledge to support the nation's competitiveness.

If colleges are to meet this challenge, their vocational provision needs to:

- reflect current and future needs of the economy
- focus on sound preparation for employment, as well as up-skilling and re-skilling the workforce
- develop higher level skills with progression into and from these
- supplement vocational learning with excellent learning support and opportunities for breadth.

The Learning and Skills Development Agency (formerly FEDA) has been researching how far FE colleges provide state-of-the-art vocational education and training (VET) to level 3 and, with HE partners, to higher levels. Information from the FEFC Individual Student Record (ISR) database, a literature review, inspection reports and subject area reviews were used. Only 56 colleges emerged with significant provision (defined for this study as 100 or more enrolments in most vocational areas) at level 3 in a wide range of vocational areas, and of these, only 17 had above-average retention and achievement rates. Eight of the colleges were then visited to identify the factors that stimulate high quality vocational provision.

Key findings

The Agency's investigation concluded that successful delivery of high quality specialist vocational provision depends on a combination of following factors:

- focused mission and strategy
- first-rate teaching by expert staff
- relevant and coherent content
- sustained relationships with employers
- appropriate equipment and accommodation.

Focused mission and strategy

Colleges that aim to be leading providers of specialist vocational provision must embed this within their mission statements with explicit references to their role in meeting the needs of the economy. They should be discerning in the courses they offer, play to their strengths and resist the temptation to provide courses that are over supplied. The impact of their mission must be apparent throughout the organisation, with clear strategies for its implementation.

First-rate teaching by expert staff

Specialist teachers with vision, energy and commitment to their students, who inspire and enthuse and demonstrate a passion for their subject, appear to be the key to successful specialist provision. They may include lecturers with recent experience in the industry sector and visiting lecturers who remain active in their occupational area and so bring greater vocational relevance to learning.

Relevant and coherent content

Industry and business play a pivotal role in the development of vocational education and training, and their involvement in planning and delivery is vital. Close contact with national training organisations (NTOs) and business enables colleges to provide relevant and up-to-date training and to design effective work-related projects. It also enables students to work on live briefs to professional standards.

Strong links with local schools and higher education will help to ensure excellent provision at all levels for pre-service and in-service learners and thus curriculum coherence from school to further and higher education and training.

Sustained relationships with employers

Strong and sustained links with relevant employers need to extend beyond a purchaser/supplier relationship to mutually beneficial partnerships. The Agency's investigation showed that it was often colleges and companies working in partnership that initiated new, specialist provision.

Appropriate equipment and accommodation

Managers of high quality, specialist vocational provision need to balance the conflicting demands for investment in increasingly expensive resources with cost-effective college management.

Development and delivery issues

- It is unlikely that a single model for delivering specialist vocational education and training will be appropriate. Different types of specialisms are likely to require particular requirements.
- Consideration should be given to a network approach, in which partner colleges are linked via specialisms with lead or 'teaching' colleges. This approach would:
  - sustain innovation
  - assist planning
  - provide a focal point for employers and other key players
  - include non-specialist centres through hub and associate colleges
  - promote excellence across the sector.
- Specialisms on offer should:
  - reflect current and future needs, which may mean different clusterings of skills
  - have titles which reflect industry practice
  - focus on the application of underpinning knowledge.
- Work across the broader curriculum as well as the vocational area should be excellent and should develop all six key skills.
- Close liaison with NTOs in their work on determining sector workforce development needs and core competences should be a strong feature.
- Centres of excellence should have a research and development focus to ensure innovation, enterprise and creativity in the development and maintenance of vocational excellence.
- Links to HE are vital to secure progression for learners and promote rigour in action-based, applied research and development.
- Centres of excellence must quickly establish credibility among employers and the general public. They need a brand image which defines the provision and which appeals to highly qualified school leavers and professionals seeking to update their skills, as well as to disadvantaged people who could gain from this provision.
- Employers' understanding and support for centres of excellence may be improved by specialist networks that raise their awareness of what's new in skills, technology and working practices.
- Learners from all backgrounds must be nurtured and encouraged to strive for excellence. This will require extensive support for learners and learning, and active encouragement of non-traditional learners.
- Progression in its broadest sense must be a defining feature of centres of excellence.
- The designation of some colleges as centres of excellence will have an impact on colleges within the region and across the whole sector. The Learning and Skills Council (LSC) should consider this impact within its strategic planning and funding responsibilities.

Critical success factors

These will include:

- systematic networking between specialist centres to secure exchange of good practice
- training and development to keep full-time staff up to date with current industrial and commercial practices
- involving part-time staff with current specialist expertise in curriculum planning and delivery
- developing multimedia and distance learning materials, through partnerships between industry, the colleges and Ufi, to secure access to specialist provision for learners outside the travel-to-learn area
- the development of foundation degrees within successful specialist centres to provide students with progression opportunities
- strong links between specialist colleges, HE and commercial research departments
- well focused sectoral and regional labour market information so that colleges can direct their resources to both the short and long term skills needs of employers
- closer liaison between industry-led bodies, including NTOs, and colleges to identify the skills needs of the industry, and to foster developments within specialist vocational centres
- taking into account the high cost of industry-standard equipment and the lower student-to-staff ratios of specialist courses in funding specialist centres
- funding arrangements that enable colleges and firms to establish specialist centres.

Next steps

Despite the examples of leading-edge provision identified in this project, there does not appear to be an extensive network of providers with excellent vocational education and training. The proportion of colleges that continue to achieve high levels of recruitment to specialist vocational education and training at level 3 and above is worryingly low.

Increased specialisation, linked firmly to a curriculum that supports the economy, may redress this balance. However, the scale of the investment needed to secure a robust and sufficient set of specialist colleges should not be underestimated. Although many colleges have the potential to develop excellent specialist provision, most will need a development phase to prepare both the infrastructure and the staff to rise to the challenge of being designated centres of vocational excellence.

Introduction

1

The Learning and Skills Development Agency has been researching how far FE colleges are providing state-of-the-art vocational education and training (VET) to level 3 and, with HE partners, to higher levels. Since the project began, the government has identified colleges as the mainstay of a modern and responsive delivery system, capable of developing the skills and knowledge to support the nation's competitiveness.

David Blunkett outlined his vision for a modern skills supply system, as

> *...the re-invention for a new century of vocational and technical education ... of the same standard and delivered with the same rigour, as academic opportunities [with] new approaches to delivery ... I envisage a network of specialist centres of vocational education built around colleges or groups of colleges working with business partners.* (*Colleges for excellence and innovation* page 4, paragraph 5)

Further education's core purpose

Further education's traditional purpose – to develop knowledge and skills related to vocational and occupational areas to support the effectiveness of the economy – has fallen victim to competing demands. There are understandable reasons for this, chiefly the drive to attract a broader range of learners with a particular focus on basic skills and first step provision. However, the net result of widening participation has not been an equitable increase across all levels of achievement. The percentage of level 3 provision in colleges has fallen over the last three years. More needs to be done to pull through learners from entry level and levels 1 and 2 to higher level provision and to increase direct entry to vocational level 3 provision in FE and Modern Apprenticeships by high achievers.

The changing face of vocational education and training

FE colleges are still the major developers of skills among young people and the workforce. As the demands of the economy for skilled people increase, they need to respond ever more flexibly.

However, the respective roles of colleges and employers in securing vocational education and training have changed. Employers' commitment to training and retraining on a large scale has diminished. The decline of key strategic industries, such as coal, steel and shipbuilding, coupled with downsizing and the privatisation of former public utilities, has eroded the bedrock of vocational training, and it has not been replaced with a robust, national VET system. Successive governments have attempted to shift responsibility for training to employers by exhortation, without legislative intervention. The nature of the employment base has also changed and it is now largely composed of small or medium-sized enterprises (SMEs), lacking the economies of scale with which to fund training to national standards.

The FEFC's funding methodology initially encouraged colleges to grow without a key focus on the needs of the economy or a strategic framework within which to set their priorities for development. The establishment of the Learning and Skills Council provides an opportunity to consider the future of all post-16 education and training within a coherent strategy. It is therefore timely to explore the distinctions between the different types of post-16 providers and focus energies on leading-edge provision in the vocational areas vital to competitiveness.

The Agency's investigation

Despite these competing pressures, some colleges have maintained and extended their high quality VET provision – albeit in pockets, rather than across the board. The Agency sought to identify these colleges and examine the reasons for their atypical success using the following questions.

- What prototype models exist for focused, specialist vocational education and training in FE colleges, particularly at level 3?
- What characteristics define this provision?
- How could this provision be developed?

The likely characteristics of specialist vocational provision were envisaged as:

Curriculum range

- significant volume of provision at level 3 in technical/vocational subjects
- skills development at pre-service and updating phases.

Progression

- clear and effective progression routes and recruitment into level 3
- high levels of progression into jobs or higher study (informed by comprehensive destinations data).

Curriculum and staff development

- research and development-based approach in partnership with industry and HE
- well qualified staff, whose skills are routinely updated, with close relationships with relevant employers.

Industry connections

- active employer involvement in provision – through, for example, consultation, sponsorship, input to learning programmes, joint development activity, etc
- good reputation with local and/or sector employers, learners and general public.

Resources

- industry-standard resources and equipment – college owned or accessed through other means.

Quality assurance

- good retention and achievement rates
- high inspection grades (in the vocational subject areas provided)
- sound financial management within adequate, cost-effective budgets.

Project method

Information was obtained from three sources:

- ISR data – on enrolments to level 3 provision, and on retention and achievement rates
- a literature review including DfEE and the National Skills Task Force, FEFC and Training Standards Council (TSC) inspection reports and FEFC subject area reviews, which provided information about quality assessments and sector-specific issues
- site visits to eight colleges with high level and high quality vocational provision.

Selecting the sample colleges

FEFC ISR data for 1998-1999 revealed that only 56 colleges had significant provision (defined as 100 or more enrolments) at level 3 in most vocational areas. Of these, only 17 had above-average retention and achievement rates. The eight sample colleges were selected from this group.

The sample colleges included general FE colleges, a specialist college, a specialist centre of training, colleges offering further and higher education courses, and partnership arrangements between FE colleges and employers. There are brief profiles of each college in the Appendix.

Findings

2

Statistical review

FEFC ISR data for 1996–1999 (i.e. three academic years) indicated that the percentage of students enrolled on level 3 vocational provision (defined for this report as courses leading to qualifications other than GNVQ and A/AS-levels)has remained relatively stable at around 32% of all enrolments at this level in vocational programme areas. There are minor changes in the proportions of enrolments across the programme areas – science, in particular, appears to be growing. However, the proportion of enrolments for qualifications at level 3 (as opposed to absolute student numbers), excluding A-levels and GNVQs in the selected programme areas, has fallen from 15% of all enrolments in 1996/7 to 12.7% in 1998/9.

Between 1996/7 and 1998/9 the total number of enrolments in all level 3 qualifications declined by 1.8%. Business numbers fell by 16% across all level 3 qualifications. This decline was apparent across all modes of study i.e. full-time, part-time, part-time non-released and evening-only modes.

Engineering numbers fell across all level 3 qualifications by 9.7%, but the fall in vocational provision was again greater at 12.6%, the drop being most acute in full-time numbers.

All the other subject areas increased their enrolments across all level 3 qualifications – particularly construction, health and community care, and science. Enrolment to level 3 GNVQ precursors and NVQs in construction rose but only by 13% compared with its increase in all level 3 qualifications by 31%. Hospitality and catering numbers fell slightly in vocational provision, compared with a rise in numbers in all level 3 qualifications.

Science numbers rose by 5% in level 3 GNVQ precursors and NVQs only, indicating that enrolments to science vocational provision are holding their own compared with all level 3 science numbers.

Health and community care enrolments rose by 19.7% in level 3 GNVQ precursors and NVQs only, but only by 14% across all level 3 qualifications.

Enrolments to art and design rose in vocational provision, with a 4.8% increase compared to only a 0.5% rise in all level 3 qualification numbers.

When only level 3 GNVQ precursors and NVQs enrolments are considered:

- the total number of students has fallen slightly by 1%
- full-time numbers have fallen by 2%
- part-time released numbers have fallen by 6%
- evenings-only numbers have fallen by 4.6%
- part-time non-released numbers have risen by 12% and within this area science, construction and engineering have all increased their numbers.

Although the data suggests only a small overall decline in the numbers taking vocational courses, the statistics relating to enrolments in some areas may also be misleadingly high as individuals may simultaneously be enrolled on more than one course. In one of the sample colleges, for example, 12% of engineering students were also enrolled on another course during 1998/9. There is further anecdotal evidence from the sample colleges that some HE institutions are dropping their lower level provision in vocational areas such as motor vehicle engineering, thus compounding the lack of provision.

Literature review

The literature review revealed growing concern over the relatively low proportion of the UK population holding vocational qualifications at levels 2 and 3. The first National Skills Task Force report (1998) identified the low numbers holding intermediate-level vocational qualifications in comparison with countries such as Germany and the Netherlands. This same report quoted the 1998 CBI *Industrial trends survey* which showed that 19 per cent of engineering firms expected a shortage of skilled labour to limit output, primarily at the skilled technician and craft level. It also reported difficulties in recruiting skilled manual workers in the construction industry and a shortfall in IT specialists.

FEFC curriculum survey reports and programme area reviews highlight the skills needs of individual industrial sectors. The review of engineering (FEFC 2000) cited the Engineering Employers' Federation survey's prediction that although the number of people employed in the industry over the next 10 years would decline by 25%, more highly skilled workers, with more graduates and technicians and fewer unskilled and semi-skilled workers, would be required. The FEFC review of construction (FEFC 1999) reported concern that changes in the industry mean that training levels will not recover as the industry does, resulting in long-term skills shortages.

Such cyclical peaks and troughs in training result in skills gaps and shortages, which grow more difficult to address as skills requirements in most occupations increase. Even low paid jobs may require a much higher level of skills and knowledge and this emphasises the need to keep training at levels which may appear greater than the current needs of the labour market.

The sample colleges

To find out more about how specialist vocational provision was managed and delivered, a small sample of eight colleges was visited. Senior managers, lecturers and students were interviewed, and equipment and resources were examined.

All the colleges in the sample provide specialist vocational education and training alongside more general provision – either as designated specialist colleges or in close association with other providers of post-compulsory education and training and/or employers.

Many of the courses offered by the colleges lead to level 3 qualifications such as specialist national diploma courses, national certificates, higher level NVQs, and specialist certificates and diplomas, such as holistic therapy courses, awarded by the awarding bodies of the specific sectors.

The sample colleges demonstrate a range of models of successful VET provision.

The specialist college

The Arts Institute at Bournemouth is one of the few remaining specialist institutions of art, design and media. It offers a range of further and higher education courses, including six specialist national diploma courses. The college's provision encompasses fashion, art and design, audio-visual courses and photography, and industrial and spatial design.

The Arts Institute has been awarded several major prizes including the Queen's Anniversary Prize (1998) for work in film and television. It has also been designated a national centre of excellence for photography and was chosen by the Association of Photographers as one of 10 'apex colleges' in the UK.

Collaboration with industry and other providers

About 80 per cent of Barking College's engineering work is provided in collaboration with Ford motor company, and the college delivers apprenticeship training leading to NVQs and GNVQs. Barking and Havering colleges have joined Ford and the University of East London (UEL) to develop a centre of excellence for engineering. Ford's intention is to redevelop its site and, supported by Single Regeneration Budget (SRB) funds, to regenerate the local area. The colleges will close their existing engineering departments and locate all their engineering work within the centre of excellence. They also intend to create a manufacturing innovation centre that will carry out research and development and raise the profile of manufacturing among school pupils and the local community.

A vocational focus

Barnfield College, Luton, made a strategic decision to concentrate on vocational education and training and closed its full-time A-level courses – many of which were also offered by neighbouring Luton Sixth Form College. This has strengthened the development of the following specialist vocational provision.

Construction and motor vehicle engineering: Following Luton University's withdrawal from construction and motor vehicle engineering courses at levels 1–3, Barnfield has expanded its work in these areas on a dedicated new site and last year recruited 300 extra full-time students.

IT: IT company Cisco has established one of its regional 'academies' at Barnfield.

Holistic and sports therapies: The college has successfully developed level 3 courses to meet growing demand and invested heavily in specialist facilities.

Modern Apprentices: The college has won contracts with major motor vehicle manufacturers to train their Modern Apprentices. To add to its engineering capacity, the college took over a local training company.

Niche provision

Bradford is one of very few colleges in the country providing education and training in ophthalmics. High levels of recruitment to ophthalmic dispensing and pharmaceutical science provision reflect both the increase in jobs in these fields and the reputation of these courses.

Bradford's specialist courses, such as ophthalmic dispensing and textile coloration, recruit nationally.

Seamless progression from further to higher education

Farnborough College of Technology is a large general FE college offering courses from pre-foundation to postgraduate level. It has good provision in computing and IT, engineering, business studies, health and childcare. Approximately 28 per cent of the college's work is at HE level.

The college has signed a 'common accord' with the local sixth form college to cooperate in the best interests of the area. In the last four years it has expanded its range of vocational courses and has contracts to provide Modern Apprenticeships, national traineeships and foundation training for approximately 250 students.

Occupational sector links

Leeds College of Technology has a long history as a leading provider of education and training for the printing industry. It is one of only 12 colleges offering courses in printing and is one of the largest print training centres in the UK. Several hundred print and publishing companies use the college for training. The college's print media centre has an impressive range of printing, computer and digital print technology. Staff work closely with major international suppliers, such as Agfa, Komori and Heidelberg, which have donated equipment and materials worth over £3m. The college has been accredited to offer Cisco and Microsoft programmes.

Regional provision in engineering

A consortium of all the colleges in the Tyne and Wear area (City of Sunderland College, Gateshead College, North Tyneside College, South Tyneside College, Newcastle College and Tynemouth College) joined forces in October 2000 to create the Tyne and Wear Further Education Consortium. The six colleges had previously considered ways to develop a coherent regional training facility across a range of engineering disciplines. The intention is to facilitate access to engineering across the network of colleges.

Support for new industries

At South Nottingham College students can progress from FE courses to higher national diplomas/certificates in photography and imaging, print media and digital design, and multimedia. They provide national diplomas in media production, photography, print and digital media, NVQs, courses accredited by OCN, and specialist short courses to up-skill the local workforce. The Photo and Imaging National Training Organisation (NTO) and the British Institute of Professional Photographers acknowledge the college as a centre of excellence for photography and imaging. It is also a centre of excellence for print and has strong links with the print industry.

The college has joined the Photography and Imaging NTO, five other FE colleges and Kodak to establish a digital imaging hub for Ufi.

A multimedia skills centre, supported by European funding, offers industry-standard courses in imaging, web design, desktop publishing, video editing and CD production.

Much of this is delivered at the refurbished Charnwood Centre, where £2.5 million has been invested in a modern imaging centre. The centre houses print and photographic departments with professional-standard digital resources.

Features of excellence

Given that a college can display pockets of outstanding quality, with one or two curriculum areas that outshine the others, it is important to identify the features that define excellence and the conditions essential for it to thrive. Although the defining features of any high quality provision are likely to be similar – and to include high quality teaching, and effectively managed and planned provision – excellent provision is likely to involve a combination of factors that make up more than the sum of the parts.

The site visits suggested that vocational excellence is defined by:

- focused mission and strategy
- first-rate teaching staff
- relevant and coherent content
- sustained relationships with employers
- appropriate equipment and accommodation.

Focused mission and strategy

If colleges are to provide excellent vocational education and training, they need a renewed emphasis on vocational provision that:

- reflects current and future needs of the economy
- focuses on providing a sound preparation for employment, as well as up-skilling and re-skilling the workforce
- develops higher level skills with progression into and from these
- supplements vocational learning with excellent learning support and opportunities for breadth of study.

Mission statements

Successful specialist providers have a clear sense of current and emerging market needs and their courses remain responsive to employers' requirements. Most of the colleges in the sample made explicit reference in their aims and mission statements to the needs of the economy or employers:

'...to develop people through learning for the benefit of themselves, society and the economy...'

'...through excellence in education and training, Leeds College of Technology will contribute to the region's competitiveness...'

'...to promote and underpin the local and national economy and social fabric of Bradford...'

'...to create dynamic learning situations which will enable individuals to achieve their personal education and employment goals...'

'[to be]...a major contributor to the national targets for education and training meeting the needs of school leavers, employers and adult returners...'

'...to provide a centre of excellence on a local, national and international basis, for specialist vocational and non-vocational further and higher education in art and design...'

As the above illustrate, the concern for the development of the individual or the community is placed alongside the needs of the economy, indicating the deep commitment of the sector to learners. However, a degree of mission confusion may be evident, even in colleges committed to vocational excellence.

Management and strategic direction

Although inspection reports frequently show that good quality provision owes much to good quality management, they also show outstanding quality in curriculum areas despite less impressive cross-college provision. Nevertheless, the management of a college can stifle or foster the development of good practice. Good managers enable staff to perform at their best. Good colleges are forward-looking institutions in which the managers nurture excellence. A common feature of the sample colleges was the personal interest of senior managers in the specialist vocational provision.

Focus on strengths

Competition for students may still lead colleges to introduce an area of work for which there is already adequate provision in neighbouring institutions. The colleges surveyed showed the benefits of making a realistic assessment of strengths and capitalising on them.

Given diminishing local demand and the need for technicians rather than mechanics, Barking and Havering colleges had to change their engineering provision and cooperate if they were to create a modern facility for motor vehicle engineering for south-east London. That willingness to cooperate laid the foundation for the subsequent discussions with Ford to establish the centre of excellence.

The area-wide inspection in Newcastle was the catalyst for cooperation across post-16 providers of education and training, including private training providers. The intention is to create a unified strategy across Newcastle, so that young people have wider learning opportunities and easier transition to education and training opportunities at key stages in their lives.

First-rate teaching staff

A key ingredient of specialist provision appears to be leadership by specialist teachers with high levels of commitment to their students, vision and energy, who inspire and enthuse and demonstrate a passion for their subject.

NFER research (RSA 2000) highlights teaching by specialist staff as a major contributor to effective teaching and learning: 'individual teachers are generally more important determinants of effectiveness than whole school factors. All lessons identified as demonstrating effective practice were taught by specialist teachers with high levels of personal involvement, passion and commitment...'

Managers and teachers in the Agency's study echoed this view, many using the same terms.

In a VET context, these staff:

- are effective teachers of both young full-time students and part-time professional practitioners
- have close contact with modern industrial or commercial practices
- maintain a strong focus on professional development which is matched to the needs of the course
- represent a balanced blend of full-time and part-time staff, the latter still working professionally in their field
- display high levels of care and support for their students
- maintain frequent contact with employers and suppliers of equipment
- can design and teach a course which is relevant to the needs of the industry.

Broad knowledge and expertise

Specialist staff in the sample colleges frequently taught across further and higher education. The students then benefit enormously from staff with broad knowledge and expertise and probable greater continuity across the two levels.

> Staff at the Arts Institute at Bournemouth teach the national diploma, the higher national diploma (HND) and degree programmes. There are also part-time teachers who are still working professionally in their specialist field.

> Part-time staff teaching on Bradford College's ophthalmic dispensing certificate are practising dispensing opticians, and some full-time staff have only recently left full-time employment so maintain strong links with the industry and professional bodies.

The use of part-time staff and visiting lecturers who are also employed in the occupational area in which they teach is an important factor. They are often attracted to part-time teaching because they enjoy the contact with students, are fascinated by their subject and find teaching itself a learning experience. Their input is crucial to the continuing currency of the course, as they provide a tangible link to the world of work and a real-life role model.

However, it is increasingly difficult to maintain and increase the stock of such experts. It is also hard to attract staff from industry into full-time teaching because of the conditions of service and levels of pay.

Investment in staff training and updating

Most recent FE staff development initiatives have focused on qualifications, particularly the need for teachers to qualify as assessors and verifiers. The need for teachers to keep up with their subject area, to undertake work experience and secondments to industry has been comparatively neglected. Colleges that provide specialist vocational education

and training, on the other hand, have tended to invest in staff development that enables teachers to develop their knowledge of their subject and to keep up to date.

> Staff at South Nottingham College are regularly seconded to industry to up-date their skills.

> Staff in the print media centre at Leeds College of Technology keep up to date through their close links with major companies in this country and abroad. The centre has an exchange programme with Dortmund, Germany for staff and students. This enables them to keep abreast of training and production techniques in competitor countries.

Close links with the industry and professional bodies, through visiting lecturers, conferences and professional meetings, also keep teachers up to date.

> Bradford College has a science advisory committee which includes industrialists and external members of the scientific sectors represented by the college's courses.

In colleges providing a lot of higher education, the need for teachers to research and to acquire higher level qualifications has enhanced their FE courses. Work funded by the Higher Education Funding Council (HEFC) on, for example, teaching and learning strategies, has affected the whole college.

Most colleges in the sample, however, reported difficulties in enabling their FE staff to update their expertise through secondment. This finding is confirmed by a recent Agency survey of staff in all FE colleges (RPM 316).

Synergy between managers and enthusiasts

A systematic approach to securing excellence cannot rely on the efforts of individual players. Better synergy between managers and enthusiasts could translate the energy of individuals into strategic initiatives that deliver excellence as the norm, rather than as an exception.

Relevant and coherent content

There are several aspects to securing relevance and coherence in curriculum content.

Meeting business and industry's needs

Industry and business need to play a pivotal role in the development of vocational education and training. Employers and suppliers contribute by:

- providing sponsorship and specialist equipment
- participating in the design and operation of courses
- participating in the teaching of the courses
- providing up-to-date skills and knowledge of the sector
- providing work placements
- developing up-to-date teaching materials
- providing information on the skills and knowledge required by their industry, and on skills gaps and shortages.

Students are attracted by courses they know are relevant and will equip them directly for employment. Close contacts with industry and business enable colleges to design work-related projects and enable the students to work on live briefs to professional standards.

Collaboration with companies may also enable colleges to recruit more learners and increase their revenue.

> Barnfield College has contracts with large motor vehicle producers such as Renault and Volkswagen to train their Modern Apprentices. Within the engineering centre of excellence, Barking and Havering will undertake, at full cost, all Ford's dealership training in the southern region, previously done at the central Ford dealership training facility in Daventry.

Collaboration with industry often results in colleges adopting industry practices.

> Ford insists on its trainees having blocks of training which comprise 37 hours each week. The company applies strict discipline, expects a high degree of punctuality and high completion rates. Training for Barking College's engineering students starts at 8.15 am. Once the centre of excellence is established, this is likely to be adjusted to 7.30 am as that is when Ford's trainees start each day.

Cisco, the leading manufacturer of networking and telecommunications technology, has developed several regional 'academies' within further and higher education institutions, which are designed to train network engineers. The company and the colleges offer the Cisco Certified Networking Associate programme. Based on practical and theoretical teaching, this equips students to use current and future industry-standard technology with Cisco training materials, hardware and software. These full-cost courses are aimed at students who already have a good understanding and experience of current computer technology.

> Barnfield College has located its Cisco training centre in a new facility. Although the specialist equipment and materials have largely been funded by Cisco, the college's own full-time students can use them. The college is liaising with local schools to give key stage 4 pupils access to early parts of the training.

Colleges also provide retraining courses for companies, both within the college and onsite, including customised training and NVQs at levels 1–3, linked to the companies' own training programmes.

> The Arts Institute has a programme, designed with the print union, to up-skill employees in the print industry.

> Newcastle College has been invited to assist with the up-skilling of employees on the latest construction projects in Tyneside.

Specialist areas need to keep up to date with new techniques and developments in this country and abroad. In the print industry, employees tend to be trained on a narrow range of machinery and thus to acquire a narrow range of skills and knowledge.

Specialist centres have a wider range of equipment than many companies, so can expand the competencies of their students. Some colleges offer employers opportunities to try out new equipment and software, as at Leeds College's print media centre.

> South Nottingham College has an arrangement with a local small company that owns a digital imaging suite. The company gives the college access to the suite to provide short courses for professional up-skilling, and the college instigated an expansion of these facilities through funding from the Training and Enterprise Council (TEC).

Support for learners and learning

Most of the students engaged in specialist provision in the sample colleges are either already employed in the field or have a good idea of what sort of employment they want. Nonetheless, admissions tutors in the sample colleges recognised that students need careful advice before they make the commitment to a specialist course. They need to be on the right level of course and receive the appropriate level of support and guidance throughout. Courses with a good reputation demonstrate high levels of support for their students. This in turn yields good retention and achievement rates.

Speedy follow-up of students who are late or absent is important in preventing drop-out.

> Staff at Farnborough College track absenteeism among the NVQ motor vehicle trainees, and provide the managing agent with weekly attendance figures.

Flexible completion

A buoyant labour market in engineering and construction in the Luton area is encouraging some students to leave their course to take up employment before achieving a qualification.

> Barnfield has responded by expanding its links with employers to regain access to these students through company training schemes.

Effective initial assessment

Learners on vocational courses often have poor literacy and numeracy skills, and require additional support. Colleges achieve high retention and achievement rates when they make an accurate initial assessment of the students' level of skills and provide appropriate follow-up support. The Training Standards Council's survey report on Modern Apprenticeships (TSC 2000) points out that deficiencies in initial assessment are a common weakness in Modern Apprenticeship programmes. This applies equally to other VET programmes. Providers need suitable assessment tools – which relate to the needs of the vocational area – and to share good practice in the assessment of students' prior knowledge and skills.

Costs to students

Many specialist courses attract students who live at a distance from the college and so incur high travel and accommodation expenses. Specialist courses, such as fashion, also often demand expensive special materials and equipment that learners may need to supply themselves. Colleges provide financial assistance wherever possible.

Maintaining viability

Recruitment to specialist provision in the sample colleges is still high and being maintained in most instances, but in some courses numbers are falling. This is the result of a variety of factors, including changes in the industry and competition in the area for post-16 year olds. Colleges are therefore:

- advertising and promoting some courses more intensively
- cooperating with schools to provide training to level 1 NVQ
- organising taster courses and summer schools for primary and secondary school pupils
- orientating courses towards latest trends in the industry to appeal to the students
- converting HNDs to degrees to give students the progression and degree qualification they want
- attracting non-traditional groups to vocational training by providing, for example, construction craft courses exclusively for women.

Access through ICT

Specialist centres of education and training need to create access for students from across a wide geographical area.

> Leeds College of Technology's print media centre attracts students from across the north of England. The college therefore takes the courses to the students through video-conferencing. The students are mostly employed by small companies unable o release their employees on a regular basis. The college has established learning centres and produced interactive teaching materials which allow the students to study from a nearby location.
>
> A company in Cumbria previously sent its employees to Leeds to study on block release. Through video-conferencing and e-mail the students are able to acquire the underpinning knowledge at a distance, and to attend the college for practical training. A partner college in Hong Kong is using the same approach. Leeds College is currently developing online materials with Leeds University for an undergraduate programme. External funding has enabled the college to employ specialists to produce the materials in conjunction with the national training organisation (NTO) and other colleges.

Breadth alongside specialisation

Specialist courses provide specific education and training within an aspect of a vocational discipline. They are a good preparation for employment, providing students with the technical and professional skills employers require. Many of the courses have been designed by or with the help of industry, and this has secured industry ownership and understanding of the course. NVQs, the national diploma and national certificate courses all feature specialisation. This compares favourably with GNVQs and now Vocational A-levels, which are seen by colleges as providing a general education for students who have not yet committed themselves to a specific area of employment.

Regular monitoring and adaptation are needed to keep abreast of the changing skills needs of employers. Engineering and construction courses have been re-equipped to reflect the greater need for computer-based competencies. Catering and hairdressing programmes feature courses in ethnic styles and fashions. Beauty therapy courses have responded quickly to the many new techniques and treatments coming on to the market. Staff at South Nottingham College are involved in rewriting the NVQ standards in photography to include digital imaging.

Employers' attitudes to breadth

Large national and international companies and small and medium-sized enterprises have different attitudes to training. The latter, which tend to specialise in a few products and production techniques, tend to want their trainees and employees to be competent in a narrow range of skills directly related to the production process. Large companies, such as Ford on the other hand, want their trainees to be more broadly educated.

> Ford's Modern Apprentices begin by taking a national traineeship. The trainees take a GNVQ alongside their NVQ training for breadth and flexibility.

Some employers are more interested in specialist technical and professional skills than breadth of study. However, colleges and most employers recognise the need for students to develop the generic, personal and transferable skills that modern work practices require, and acknowledge the need for employees to be prepared for inevitable career changes.

The first report of the National Skills Task Force quoted the 1997 *Skills needs in Britain* survey in which 15 % of employers believed there was a significant gap between employees' current skills and those needed to meet business objectives. Sixty-eight per cent of employers believed the skills required of their employees were increasing. The report also referred to the growing demand for generic skills, such as team working, and the lack of young people with appropriate numeracy and science skills.

Enrichment

Colleges providing training leading to NVQs and Modern Apprenticeships give students not only the specialist skills relating to their occupation but the broad underpinning knowledge of their subject that will enable them to transfer their skills. For example, training in motor vehicle engineering will equip students with generic principles and skills which can be applied to other aspects of engineering. In addition, key skills and generic subjects, such as health and safety at work, are transferable across areas of employment.

The colleges' full-time courses attempt to broaden the students' experiences through business studies, cultural and historical studies, the discussion of legal, social and contemporary issues, and information-seeking and research skills. Many colleges offer students an enrichment programme, which incorporates a broad range of organised, college-wide activities.

> Students taking the national diploma in photography at South Nottingham College also take a GCSE and GCE A-level in photography, to acquire the additional disciplines provided by these courses and to facilitate progression to a degree course.

Specialist courses frequently introduce generic business skills such as diagnosing problems and work process management skills. They attempt to instil personal values, such as discipline and motivation.

> The national diploma course in multimedia graphics at Farnborough College includes a business studies element because many of the students progress to employment in small enterprises.

These broadening elements are generally set within the specialist subject. Only occasionally are courses offered which give students an opportunity to develop skills in several separate disciplines, for example hairdressing and beauty therapy, before committing themselves to a specialist area.

Part-time students, perhaps attending college as day-release Modern Apprentices, may not receive such enrichment because of lack of funding.

Key skills

Colleges see the key skills as the bridge between the demand for specialised training and greater breadth. However, although teachers support the principles behind the introduction of the Key Skills Qualifications, many still doubt their ability to teach and integrate them satisfactorily within vocational studies. Some departments are concerned that they do not have sufficient resources to teach key skills satisfactorily.

They are also frequently concerned that high levels of recruitment, student retention and achievement in specialist provision will be adversely affected by students' lack of interest in and ability to cope with key skills. Colleges are particularly worried about the impact of the key skills external tests on students' motivation and achievement rates.

Coherence and progression

The availability of excellent provision at all levels for pre-service and in-service learners secures curriculum coherence from school to further and higher education and training.

An important factor in the ability of specialist programmes to attract and retain students lies in the fact that the level 3 courses are a rung in a ladder of qualifications. Students are able to start their studies at the level that best suits them, and progress to higher level courses. In most of the colleges surveyed national diploma students are able to progress to a higher national diploma or to the first year of a degree course. Students taking specialist certificates, which are awarded by professional institutions, can often progress to higher level professional qualifications.

In several of the colleges students are not recruited directly to level 3 courses but progress from level 2.

Recruitment to the level 3 courses in hairdressing and beauty therapy at Barnfield is strong. The college attributes this to the positive experience students enjoy at level 2. The college is now considering the introduction of a level 4 course in hairdressing. This would be aimed primarily at salon owners and would focus on management as well as higher level technical skills.

Motor vehicle students at Farnborough can progress from an NVQ at level 2 to level 3 and to a higher national certificate course.

At the Arts Institute and at South Nottingham College recruitment to HND courses is buoyant and there is good progression from the national diploma courses. The Institute intends to pilot a specialist foundation degree in photography to cater for the strong demand for higher level studies. South Nottingham College is developing a distance learning foundation degree in association with the Open University and the Photography and Imaging National Training Organisation.

Leeds College of Technology cooperates with both the University of Leeds and Leeds Metropolitan University to offer a degree course in print, and is considering the introduction of a higher national certificate for its part-time students.

South Nottingham College uses its strong contacts with employers to help committed and motivated students secure employment. The college has established a good reputation with employers through the quality of its students, and a good reputation with students through the opportunities to progress to employment.

Newcastle College sees the potential for students to progress to the college's own higher level courses as an important factor in its ability to run successful level 3 courses. One of the reasons the college retained the national diploma when the GNVQ was introduced was that they believed it offered students better progression opportunities into higher education and employment. Formerly, only a few performing arts students in the area could obtain a place at a specialist institution. The national and higher national diplomas have opened the subject area to many more students and recruitment is buoyant.

Progression may not just be related to the specific vocational area. Related studies and management training in the context of the occupational area may be appropriate.

Bradford College offers a degree course in ophthalmic dispensing which includes management studies. This year the college introduced a degree course in complementary therapies, which has recruited well. It also offers an HND/degree programme in beauty therapy with management which gives students opportunities to progress to the national diploma in beauty therapy and several other courses.

Parity of esteem

Although many students, parents and employers still hold general education courses in higher esteem, clear progression opportunities within a vocational area of study do much to raise its status. The fact that vocational qualifications do not close down options and do not exclude students from progressing to higher education has therefore been strongly emphasised by the colleges in their marketing.

Local collaboration

Colleges can enhance their specialist reputation locally through contact with schools and community groups.

The Arts Institute aims to offer what it terms 'all through provision'. The college provides specialist courses to students of all ages. It runs an active Saturday school for 9–16 year olds, some of whom continue their post-16 studies at the college.

The engineering centre of excellence being established with Ford by Barking and Havering Colleges is to include a business innovation centre that will aim to promote manufacturing to schools and the local community.

Farnborough College is cooperating with local schools to offer work-related learning to pupils in key stage 4. Such cooperation introduces pupils to the idea of continuing their studies at the FE college. It gives them a first taste of vocational studies and helps to overcome any prejudices against vocational education and training.

Such partnerships offer learners a wider range of opportunities than the college can provide on its own. However, ensuring that potential learners in schools can find out about all the provision on offer is still difficult, because of schools' desire to retain pupils post-16.

Sustained relationships with employers

All the colleges had strong links with the relevant employer base which went beyond a purchaser/supplier relationship. The influence of these relationships on provision was apparent.

Much of the new, specialist provision has been led by colleges following hunches, or by major companies planning to expand. The ability of FE colleges to respond flexibly to opportunities for development, as and when they are identified, is a strength of the FE sector which needs to be preserved. None of these developments was likely to have been prompted by labour market information or skills forecasts.

However, although it is important to maintain that capacity for taking calculated risks, in the learning and skills era it is not enough to rely on the entrepreneurial nature of colleges to meet the essential skills needs of the economy.

Information about skills needs

A great deal has been written about the nature and quantity of labour market information available to colleges. Colleges comment that much of it is not specific enough to provide a sound basis for the development of specialist VET courses. The National Skills Task Force has called for a stronger focus on priority skills needs in the planning and provision of education and training. This will only be possible if there is a stronger and more reliable base of information on labour market and skill needs. It noted again in its second report (1999) that although there is no shortage of labour market data, information needs to be more consistent, coherent and forward-looking.

Colleges in the sample called on a range of information to design their strategic plans. They used local, regional and national published reports on skill needs, consulted with NTOs and the local TECs, and liaised with individual companies and sector employees. Colleges participate in collaborative initiatives with partners from companies and other organisations, and establish advisory committees. In this way they remain responsive to the requirements of employers and individuals and have a clear sense of the direction of the market.

Collaboration with NTOs

NTOs can encourage collaboration between departments with strong specialisms and act as a catalyst for developmental work. The Photography and Imaging NTO is cooperating with South Nottingham College, and with five other colleges and Kodak, to establish a digital imaging hub for Ufi. One of their main aims is to create distance learning materials which can be used to up-skill the workforce. South Nottingham College is also working with the NTO to provide training in digital imaging for recent graduates in photography, and to provide short courses, funded by the European Social Fund, to up-skill people employed in photography.

Leeds College of Technology and the Print NTO have strong and productive links.

Appropriate equipment and resourcing

Managers in high quality, specialist provision have successfully balanced the conflicting demands of investing in increasingly expensive resources and managing a college which is required to be ever more cost effective. Good financial management is a prerequisite for funding developments on this scale. Colleges are adopting a variety of measures to ensure that their provision is adequately funded and that there is sufficient capital investment to sustain excellence.

To create the engineering centre of excellence with Ford, Barking and Havering colleges are investing about £6.5 million, of which approximately one-third is FEFC funding.

Although there has also been some development funding, Barnfield College has spent £5.5m converting and equipping the new enterprise centre for construction and engineering. Barnfield has made a surplus each year which has been invested to improve the college's infrastructure. The college is spending a minimum of 5 per cent of its revenue budget each year on capital equipment.

However, even good financial management cannot totally cover the requirements of specialist courses: they rely heavily on contributions from industry. Many VET areas depend on expensive equipment and sustaining a specialism demands high investment in resources. There are rarely enough funds to meet the needs of professional staff who want the best and latest resources. Not all colleges have an obsolescence policy which would enable new equipment to be purchased as older stock becomes out of date. As a consequence, teaching often has to be organised around the availability of equipment.

Small specialist colleges suffer from the additional disadvantage that they do not enjoy the economies of scale of large general FE colleges. They cannot balance high cost, capital-intensive courses with low cost courses based on classroom teaching.

Keeping up with developments

The chief inspector of the Training Standards Council comments in his latest annual report (TSC, 2000) that in government-funded training 'the highest standards of occupational training are found in specialist providers, and that training on good specialist equipment is a defining strength of work-based learning'. The high reputation that colleges have earned for their specialist VET courses does depend on the good quality of their facilities and equipment.

Despite their commitment to specialist courses, it is difficult for colleges to keep pace with the need for renewed capital investment, especially as technical specifications are constantly changing. A characteristic of excellent colleges is that they appreciate the need for industry-standard equipment and manage to keep pace with the latest developments.

The excellent quality of many of these courses and their stock of specialist equipment could not be sustained without the support of industry. The scale of industrial sponsorship is impressive and enables the colleges to offer training on the latest and most sophisticated equipment.

Major international companies such as Agfa, Komori and Heidelberg have donated equipment and materials worth over £3 million to the print media centre of Leeds College of Technology. Individual items of specialist equipment costing more than £500,000 would be too expensive for many specialist centres.

Ford is making a heavy financial commitment to support the centre of excellence in engineering with Barking and Havering Colleges.

Colleges that are unable to call on such support find maintenance and improvement of equipment more difficult. It is frequently that cost combined with low student demand which has forced them to reduce their commitment or to withdraw altogether.

FE students studying in institutions which offer further and higher education courses in the specialist areas benefit from the college's total investment in resources, much of which is focused on higher level studies.

> At the Arts Institute at Bournemouth resources are procured for a subject area rather than a level of study, so that national diploma and undergraduate students work alongside each other on state-of-the-art equipment.

The cost of maintaining an adequate stock of computers in specialist areas is high. All aspects of vocational education and training depend increasingly on information technologies which become quickly outdated in specialist areas. Courses in design, engineering, printing and publishing must use the latest multimedia technologies if they are to maintain currency.

Fewer economies of scale

Specialist VET provision frequently requires large teaching areas for relatively few students, or needs access to specialist facilities for small groups of students. Performing arts require studios and theatres; motor vehicle engineering requires sufficient space to accommodate large vehicles; and ophthalmic dispensing and photography require specialist accommodation and resources in which few students can work at any one time. These courses are costly to accommodate and have a high staff/space to student ratio.

> The engineering centre of excellence being created with Ford did not fit the FEFC funding norms and criteria, as Ford allocates more space for training facilities and workshops than FEFC criteria would accept. This initially caused the Council to question how the courses were to be taught. The distribution of income and the ownership of assets also did not fit standard FEFC practices. These issues have been resolved but they point up the need for the funding body to be flexible in how it considers such projects.

Developing excellence

3

The Agency's research examined the current state of play in specialist vocational provision and the conditions in which colleges successfully offer and recruit to it. Colleges that have developed, or have the potential to develop specialist VET provision should be identified on the basis of analysis of the short, medium and long term needs of the local, regional and national economies.

Working with industry, and providing progression to and from intermediate-level qualifications, a network of specialist centres of vocational excellence would begin to address the skills needs of the economy in a structured way. However, the magnitude of the task should not be under-estimated. Few colleges currently display the type of commitment, vision or expertise required for vocational excellence.

Specialisation alongside access

Although proposals to enhance vocational education and training through increased emphasis on specialisms are welcome, a debate about the difference between specialism and excellence is also required. Excellence is about quality rather than level, so provision for SMEs, people with disabilities and learning difficulties and basic skills, for example, may all be described as excellent. Decisions about the types of specialism to nurture are perhaps more important as they lie at the heart of the learning and skills required to support excellence.

Supporting students to attain excellence and securing the involvement of disadvantaged individuals and groups may be critical success factors. The focus on excellence should include the active encouragement of non-traditional learners. College plans to develop centres of vocational excellence should be required to specify how they will secure:

- high quality learning support to engage and secure progression for learners at all levels
- active encouragement of non-traditional learners
- effective support for basic skills.

Challenges to colleges

The recent debate on the Skills Agenda has not always included the FE sector and, despite endless attempts to reform qualifications, there is arguably a less coherent VET system than 20 years ago. If colleges wish to be in the forefront of a modern VET system, they need to find a new and distinctive role.

FE colleges that have been involved in previous initiatives to develop 'centres of excellence' may be wary of such terms. The initiatives often provided only part of the equation required to achieve excellence:

- renovated campus without the right level of new equipment
- state-of-the-art equipment without resources for its upkeep
- new teaching methods and/or materials without the accompanying staff training and development.

This new initiative should ensure that all the ingredients for success are secured.

The Agency's investigation confirms our recent and previous research (FEDA, 1996) into the complex mix of ingredients required to support this kind of specialisation. Improving the skills base of the UK to support the economy will demand new types of provision, possibly based around clusters of skills, and new ways of engaging with employers. This will require a modern approach: doing things differently and doing different things.

Clearer articulation of the rationale for excellence in relation to related initiatives, such as Modern Apprenticeship reform and foundation degrees, which affect all colleges, would make the potential benefits across the sector more transparent.

A radical overhaul of mission and purpose

The colleges in the Agency's survey made explicit reference to the needs of the economy in their mission statements but it did still tend to be alongside other priorities. Colleges perhaps need to be even more specific about their key focus on developing vocational excellence to meet the demands of a competitive economy.

Although it is vitally important to secure direct access to level 3 vocational provision for young people with good GCSEs, the task is not simply about initial vocational education and training. Continuing professional development and updating – transporting lifelong learning to the workplace – are also required on a massive scale. This will require colleges to cope with fluctuating demand and, especially from SMEs, episodic, low-volume demand.

The new demands of the workplace call for specialisms to be clustered by sector and level. This would capitalise on generic aspects and avoid duplication of provision. There may be new groupings of skills and knowledge within specialisms, such as IT and languages within financial services, customer care and marketing within fashion and design. NTOs will be crucial in determining this split, but their most important challenge at present may be their ability to group specific and generic skills around current and emerging occupations, rather than historical job boundaries.

Some colleges may be driven by a sharper focus on a defined range of specialisms and clients; for others a focus on the workplace may improve staff and student motivation.

Clear policy steers on vocational provision are needed to encourage institutions to look forward and develop excellence to meet the rapidly changing needs of a modern, competitive economy.

Staff expertise and capacity to deliver

As with all effective teaching and learning, the role of teachers is vital. This is even more acute with greater degrees of specialisation, as staff must continuously update their subject specialism as well as their pedagogical skills. Accompanying staff and curriculum development will clearly be needed if the initiative is to succeed.

Colleges need new approaches to recruiting, retaining and updating expert staff. They may need to engage in a 'virtuous circle' with employers, based on their reputation for staff expertise and contemporary knowledge of the industry or discipline, to secure mutually beneficial collaboration.

Industry may draw upon the intellectual capital of the college to solve business problems and, in turn, provide more opportunities for exchange and development of knowledge and expertise. This mutual exchange may extend to joint appointments and staff exchanges.

The problem of how to update current, specialist staff and recruit high fliers is acute throughout the sector. Issues such as pay and promotion also need to be addressed.

Costs and upkeep of specialisms

The pace of change in technology and business practices puts further strains on resources. It will therefore be essential to ensure that the new centres are sustainable – to ensure that public resource is used prudently at national and local level, and to maintain relevance in specialist provision. The colleges in the Agency's survey were actively pursuing funding from a wide range of sources and in partnership with companies and suppliers.

There are advantages and disadvantages in these arrangements. On the plus side, sponsorship and joint ventures can result in more up-to-date equipment and encourage ownership by the companies concerned. However, such arrangements may limit the use of this equipment to students with a link to the specific company (although this rarely happens), and may largely depend on how close geographically the colleges are to large companies.

Chasing funding is also time consuming and may divert attention from the main activity of providing high quality learning in specialist areas. There is a strong case for centres of excellence to be largely core funded by the LSC, with support from LSC, NTOs and other bodies. They could then exert leverage on employers and industry to secure a financial contribution, for example, through tax incentives or matched funding. A mix of statutory and non-statutory measures should be considered.

The importance of 'place'

The colleges in the Agency's survey developed their specialisms in their current locations for a variety of reasons, some of them historical.

- Textile coloration in Bradford has its roots in the now declining regional textile industry and illustrates the evolutionary process by which some niche specialisms develop.
- Printing equipment used to be manufactured in the Leeds area and a high proportion of the country's printing companies are based in the Yorkshire and Humberside regions. However, only 12 of approximately 60 print companies thriving in 1973 exist today. Leeds College of Technology's print media centre is the only one offering carton printing, which attracts students from across the country.
- The print media centre in Leeds was originally part of Leeds College of Commerce, which later became Leeds Polytechnic and divested itself of lower level courses.

Previous initiatives, such as the Competitiveness Fund, attempted to secure equitable access to learning opportunities in centres of excellence or enhanced provision across the regions. Although there was some attempt to match the location of specialist centres to areas with high demand for related skills, unease about the effect on learners outside the travel-to-learn area and the lack of capacity to reduce this by telematic learning methods may have resulted in some duplicated facilities. Decisions may have been more influenced by the size and population of a region than the match with employment opportunities.

Significant advances in technology over recent years and changes in industry working practices have, to some extent, reduced the importance of location. Online, real-time links between centres, and increased use of computer-aided design and manufacture (CAD and CAM) have reduced the need for hands-on experience with expensive and quickly obsolescent machinery.

It is therefore important to exploit advances in technology to secure maximum access for learners across the region or country, while siting specialist centres near major areas of employment in the specialism concerned. These decisions need to involve Regional Development Agencies (RDAs) and NTOs as well as the LSC, and match both the current labour market profile and plans for regeneration and inward investment.

Delivery issues

4

It is unlikely that a single model for delivering specialist vocational education and training would be appropriate. Different types of specialisms will have particular requirements, taking account of the:

- balance between 'desk' and workshop or practical work
- possible use of ICT
- range, availability and cost of resources.

Colleges could be linked through a network via specialisms, with lead or 'teaching' colleges. This approach would:

- sustain innovation to keep pace with new demands
- assist with planning for fluctuating demand
- provide a focal point for employers and other key players – especially useful for national employers with local branches
- include non-specialist centres through hub and associate colleges, capitalising on ICT solutions to secure economies of scale
- promote excellence across the sector.

Guidelines on the Centres of Vocational Excellence Initiative should encourage specialists to consider how:

- the broader curriculum will be enhanced
- supporting core subjects relate to the vocational area
- priorities such as basic and key skills will be built into programmes.

Excellence in the supporting curriculum should also be a defining feature and should reflect the demands of the vocational area while developing all six key skills. Colleges should consider what is transferable across specialisms to secure synergy as well as economies of scale.

Our research revealed that practitioners delivering specialist vocational education and training were unsure that the key skills specifications and qualifications were appropriate for their students. Some admitted difficulty both in identifying their relevance to the subject specialism and in delivery. It may be useful to consider different concepts of breadth that extend students' ability in ways that relate more directly to the needs of the sector or industry. To be successful in current and future employment, workers need in-depth knowledge, which enables them to adapt more easily to changing demands. The balance between the development of vocational specialist skills, vocational core competences and generic knowledge and skills is therefore of vital importance.

The type of specialisms on offer needs to be carefully considered. It may not be appropriate to base specialist centres on individual subject areas or disciplines. They should:

- reflect current and future needs, which may mean different clusters of skills and subdivisions of some broad areas e.g. engineering
- have modern and appealing titles which reflect industry practice e.g. fashion and interior design rather than textiles
- focus on the application of underpinning knowledge.

Specialist provision needs close liaison with NTOs in their identification of sector workforce development needs and core competences. This would strengthen the credibility of the training and the relationship between providers and NTOs. However, liaison with NTOs is not a substitute for direct contact with employers. Regular and frequent dialogue between relevant players from education and industry is an essential ingredient of specialist vocational provision.

Centres of excellence should have a research and development focus to encourage the innovation, enterprise and creativity required to sustain excellence and leading-edge provision. This should be in line with the needs of business and industry and should focus on applied research relating to product development and new working practices, as well as on teaching and learning methods and the use of ICT. Industry sectors such as creative industries, new media and fashion, need to engage in research as well as the health and service industries. Providers of specialist vocational education and training need to establish their research credentials in order to take their place alongside other providers of research.

Links to HE are required to secure rigour in action-based, applied research and development. The curriculum and its delivery could be further enhanced by including live applied research projects for employers by students or teaching staff. This would help to develop further education's intellectual capital as a resource for industry.

Centres of excellence must quickly establish credibility among employers and the public. They need a brand image which defines the offer and appeals to users. If parity of esteem is to be achieved, the centres must be attractive to highly qualified school leavers and professionals seeking to update their skills, as well as to disadvantaged people who could gain from involvement. Developing local pride in the colleges will be important and may require local and national marketing of the centres as valuable resources.

The visual impact of the centres and their reputation for state-of-the-art resources make important contributions to the success of the initiative.

Networks to support employers' awareness of skills development and changes in technology and working practice are equally important. Lessons from the Competitiveness Fund show that it is difficult to promote training for which industry has yet to recognise the need, let alone secure industry's financial support.

Learners from all backgrounds must be nurtured and encouraged to strive for excellence. This will require extensive support for learners and learning, the active encouragement of non-traditional learners and participation profiles that reflect gender, ethnicity, disability and social class populations in the local areas and occupational sectors.

Although progression is a defining feature of centres of excellence, there are many forms of progression that are important in this context:

Progression into and from level 3

Criteria for recognition as a centre of excellence should include pull-through from level 2 (and below) with targets set and results inspected as an indicator of quality. This would address the issue of the potential isolation of centres of vocational excellence from their partner providers. It would also promote curriculum coherence and transition planning between different providers.

Progression to HE

Progression to different types of HE, such as foundation degrees, higher level professional studies, up-skilling, as well as to regular degrees should be routinely available for learners wishing to progress.

Progression to employment

Progression to employment should be a crucial test of quality.

Workforce development

Up-skilling the existing workforce through lifelong learning focused on vocational education and training should also be supported by vocationally orientated colleges.

The designation of centres of excellence will affect colleges within a region and the sector as a whole. There may be knock-on effects on:

- the courses offered by other colleges, school sixth forms and other providers of post-16 education and training in the locality
- the perception of other departments and colleges which were not designated specialist centres
- the patterns of recruitment within an area
- the ability of students within the region to gain access to specialist centres
- students' financial support arrangements
- the funding of specialist centres
- the development of teaching and learning materials and methods of teaching
- location of and access to higher levels of vocational education.

The Learning and Skills Council will need to consider such issues as part of its strategic planning and funding responsibilities.

Next steps

5

If vocational education and training is to reach its full potential, the Learning and Skills Council will need to consider the following issues:

- current capacity in the colleges
- planning and modelling of specialist centres – content, location, management
- selection of potential centres of vocational excellence
- development and start-up processes
- implications for start-up and recurrent funding.

APPENDIX

Profiles of sample colleges

The Arts Institute at Bournemouth

The Arts Institute was formerly the Bournemouth and Poole College of Art and Design. It is a major provider of further and higher education in art and design in the south-west of England. The college was opened by Dorset County Council in the mid-1970s when the reorganisation of the county's post-16 education resulted in the establishment of five colleges. The new college of art was created from the two former schools of art in Bournemouth and Poole. The college became the only FE college in the county designated to provide courses in art and design,including HE courses. A significant proportion of the college's FE students are recruited nationally. A large majority of Dorset's students continue in full-time education at the age of 16, and about half enter the FE sector. In 1984, the college moved to new purpose-built accommodation next to Bournemouth University. The college enjoys a high reputation for vocational education and training in art and design. Its aim is to provide a centre of excellence on a local, national and international basis, for specialist vocational and non-vocational further and higher education in art and design. The college has good links with schools and employers.

Barking College

Barking College is a general FE college which offers courses in all the FEFC's 10 programme areas from foundation level to higher education. It competes for students with five other general FE colleges and four sixth form colleges. The London Borough of Barking and Dagenham has eight 11–18 comprehensive schools. Barking and Dagenham is the smallest London Borough with a population of about 157,000. According to the 1991 census, only 30.3 per cent of the population were in professional, managerial or technical occupations, compared with 39.5 per cent in Greater London as a whole. Barking and Dagenham is one of the most industrialised boroughs in London. The industrial belt along the Thames includes large companies with which the college has developed a range of collaborative provision. Over the last six years the college has expanded its training on employers' premises. Collaborative provision now represents about 30 per cent of the college's work. The college has productive relationships with some other colleges, employers, the local authority and the TEC.

In its mission statement the college aims to be:

- 'a major provider of quality, cost-effective, post-16 learning and personal development opportunities
- a learner-centred college promoting equality of opportunity in all that it does
- a major contributor to the national targets for education and training meeting the needs of school-leavers, employers and adult returners'.

Barnfield College

Barnfield College is the largest of four FE colleges in Bedfordshire and Luton. it operates on four sites in Luton, a fifth in Bedford and through 66 centres across Bedfordshire. The college serves a community which is involved in the manufacturing industry. Much of this is concentrated on the automobile industry. Unemployment has fallen dramatically in Bedfordshire and Luton to less than 5 per cent at the end of 1998. The college recruits over a fifth of its students from five Luton wards showing the highest levels of deprivation and lowest levels of educational attainment at 16. Since 1994 the college has acquired new premises and considerably expanded its provision in engineering, electronics, motor vehicle engineering, construction and computing. These programmes attract large numbers of white males from areas with a tradition of low levels of participation in learning. There is a tertiary system within the borough of Luton which has one remaining sixth form at the nearby Roman Catholic high school. In 1994, following its first inspection by the FEFC, the college decided to concentrate on vocational courses and withdrew all full-time GCE A-level provision. A wide choice of full-time GCE A-levels is offered by the nearby Luton Sixth Form College. The proportion of young people staying on in full-time education in Luton has risen to 65 per cent but is still lower than the national average. The proportion of young people in Luton who achieve five or more GCSEs at grade C or above is 34 per cent compared with 44 per cent in Bedfordshire and a national average of 47.9 per cent.

In its *Vision 2005* the college aims 'to create dynamic learning situations which will enable individuals to achieve their personal education and employment goals in a cost-effective, diverse, innovative and inclusive environment'.

Bradford College

Bradford is a large further and higher education college in West Yorkshire. It has two main sites in central Bradford, close to the University of Bradford, and a large adult education centre in the north of the city. It also operates through more than 100 adult and community education venues across the Bradford district. The local unemployment rate is 9 per cent but youth unemployment is 16 per cent. The traditional manufacturing industries of woollen textiles and heavy engineering have declined significantly since the 1960s. However, the local electronics industry is buoyant. Approximately one-third of the college's full-time equivalent students are following HE courses. Courses are offered from entry to postgraduate level. The college offers provision in all the FEFC's 10 programme areas. Partnerships with the local TEC and with local and regional training providers and employers support a wide range of vocational provision. In 1999, 32 per cent of the district's school-leavers achieved five or more GCSE passes at grade C or above compared with the national average of 47.9 per cent. In the last three years the proportion of young people progressing into further education has steadily increased and is currently about 15 per cent. Within the district there are two other general FE colleges, 22 schools with sixth forms, four grant-maintained schools, two direct grant schools with sixth forms and a city technology college. Of the college's students, 43 per cent are recruited from disadvantaged areas.

The college's mission is 'to promote and underpin the local and national economy and social fabric of Bradford by providing comprehensive education and training of recognised quality'.

Farnborough College of Technology

Farnborough College of Technology is a large general FE college offering full-time and part-time courses from pre-foundation to postgraduate level. Courses are available in all the FEFC's 10 programme areas. Of the students 85 per cent live in north-east Hampshire, north-west Surrey and south-east Berkshire. In the last four years the college has extended its range of vocational courses and has increased its student numbers by about 20 per cent. The college has strong links with local businesses and community groups. Much of the employment in the area comes from information systems companies, the financial sector and service industries. The local economy is robust and the level of unemployment is 1.6 per cent with job vacancies exceeding suitable applicants, particularly in the ICT sector. The local population is highly qualified. Approximately 50 per cent of the region's employed residents hold an NVQ at level 3 or equivalent. Over the past few years the college has developed partnerships providing learning and training. These include an agreement with the local sixth form college in which both colleges have agreed to work together in the best interests of the region. The college's mission is 'to provide high quality education and training'.

Leeds College of Technology

Leeds College of Technology is a general FE college with its main centre, City Campus, in Leeds city centre. It is the only college in the city to provide printing, engineering and motor vehicle courses. It also provides courses in IT, media, photography and business management, and courses for students with disabilities and learning difficulties. Industry has provided some high quality equipment. Manufacturing employs about 18 per cent of the workforce in Leeds. About 11,000 people work in the printing industry in Leeds, making the city the largest printing centre in the United Kingdom, outside London. There are eight other FE colleges in the Leeds area. One is a Catholic sixth form college and three are general FE colleges, each offering a broad range of vocational courses. The others are specialist colleges, situated close together in the city centre. There are 45 high schools in Leeds of which 41 are for pupils aged 11–18 years. Seventy-one per cent of the college's students come from the Leeds area. Printing courses recruit from the whole of the north of England.

In its mission statement the college states that 'through excellence in education and training, Leeds College of Technology will contribute to the region's competitiveness and enable individuals to realise their learning potential'.

Newcastle College

Newcastle College is a large general FE college which has four main sites in Newcastle-upon-Tyne and more centres within the region. There are high levels of persistent unemployment amounting to 7.2 per cent across the city. Newcastle-upon-Tyne is recognised as having high levels of deprivation and over half the college's students come from disadvantaged areas. Approximately 60 per cent of young people leaving school at 16 years of age in Newcastle continue in full-time education. Their educational achievements are below the national average. Only 31 per cent of pupils achieve five or more GCSEs at grade C or above, compared with the national average of 47.9 per cent. Newcastle College offers courses in all 10 FEFC programme areas.

The college's mission is 'to develop people through learning and achievement for the benefit of themselves, society and the economy'. As a part of its mission the college has developed links with other colleges, universities, local schools and the community.

South Nottingham College

South Nottingham College is the main provider of further education south of the River Trent in Nottinghamshire. The college competes with other post-16 providers in the area. The Nottingham conurbation is served by four other FE colleges and two sixth form colleges. In the college's locality there are six schools, all of which have sixth forms. Greater Nottingham accounts for nearly 66 per cent of employment and over 50 per cent of businesses in the county. A large proportion of employees in the city work in service industries. However, the city is ranked as the most disadvantaged area in the East Midlands and has a high concentration of long-term unemployment. Unemployment has declined in recent years and is continuing to decline, with 5.5 per cent unemployment in Nottinghamshire and 11.4 per cent in Nottingham at the end of 1997. In 1997, participation in full-time education post-16 in Nottinghamshire was 64 per cent compared with a national average of 70 per cent. The college provides courses leading to GCE A-levels, GNVQs, a range of specialist first and national diplomas and certificates, as well as a portfolio of NVQs and open college network accredited courses. The college is increasing its provision of HE courses through franchises with universities.

The college's mission states that 'the college is dedicated to satisfying the present and future education and training needs of individuals as well as the whole community'.

References

Confederation of British Industry. *Industrial Trends Survey*. CBI, April 1998.

DfEE. *Colleges for excellence and innovation: statement by the Secretary of State for Education and Employment on the future of further education in England*. DfEE, November 2000.

Further Education Funding Council. *Programme area review of Engineering*. FEFC, February 2000.

Further Education Funding Council. *Programme area review of Construction* FEFC, June 1999.

Hughes M. *Competing for business: colleges and the Competitiveness Fund*. Bulletin vol 1, no 13. Further Education Development Agency, 1996.

Learning and Skills Development Agency. *Developing leading-edge staff in vocational education and training*. RPM 316. Learning and Skills Development Agency, 2001.

National Skills Task Force. *Towards a national skills agenda* 1st report National Skills Task Force, 1998.

National Skills Task Force. *Delivering Learning for all*. 2nd report National Skills Task Force, 1999.

RSA. *Arts education in secondary schools: effects and effectiveness*. RSA, October 2000.

Training Standards Council. *Modern apprenticeships – a survey report* . TSC, 2000.

Training Standards Council *Reaching new standards: annual report of the chief inspector*. TSC, 2000.

In its Centres of Vocational Excellence (COVE) initiative the government identifies colleges as the mainstay of a modern skills supply system but are colleges ready to respond to this challenge? How many FE colleges combine the essential ingredients needed to provide outstanding vocational education and training fit for a modern economy?

Searching for excellence investigates the factors which enable high quality vocational provision to thrive. It examines the work of eight colleges where, to some degree, provision reflects the current and future needs of the economy, prepares for employment, develops higher level skills, promotes progression and provides exceptional learner support. Using research and case studies, it identifies critical success factors and development issues.

BEST COPY AVAILABLE

ISBN 1 85338 622 7 £10

44